COMMISSION REPORT

FORMS AND INSTRUCTIONS FOR ELECTRIC TRANSMISSION-RELATED DATA

Prepared in Support of the 2011 Integrated Energy Policy Report



CALIFORNIA ENERGY COMMISSION

Edmund G. Brown, Jr., Governor

JANUARY 2011

CEC-700-2010-018-CMF

CALIFORNIA ENERGY COMMISSION

KAREN DOUGLAS, J.D. *Chairman*

JAMES D. BOYD *Vice Chair*

CommissionersJEFFREY D. BYRON

Mark Hesters Jim Bartridge David Vidaver **Primary Authors**

Judy Grau

Project Manager

Don Kondoleon *Manager Strategic Transmission Planning Office*

Terrence O'Brien

Deputy Director

Siting, Transmission and Environmental

Protection Division

Melissa Jones Executive Director

ABSTRACT

These electric transmission forms ask utility owners of bulk electric transmission system facilities to submit information on their bulk transmission network and on specific projects identified in their transmission expansion plans, as well as data on anticipated transmission corridor needs. While the Energy Commission cannot require independent transmission developers to respond to these data requests, it encourages independent transmission developers to voluntarily supply information on their projects. Electric transmission system owners in California have until **March 18, 2011** to submit their data responses. Responses to these data requests will be used to prepare analyses and recommendations for the 2011 Integrated Energy Policy Report and the 2011 Strategic Transmission Investment Plan.

Keywords: Electric transmission, bulk electric transmission system facilities, transmission corridor, data request, transmission forms and instructions, transmission owners, 2011 Integrated Energy Policy Report, 2011 Strategic Transmission Investment Plan

Please use the following citation for this report:

Hesters, Mark, Jim Bartridge, and David Vidaver. 2011. *Forms and Instructions for Electric Transmission-related Data*. California Energy Commission, Siting, Transmission and Environmental Protection Division. Publication Number: CEC-100-2010-018-CMF.

TABLE OF CONTENTS

ABSTRACT	i
TABLE OF CONTENTS	ii
General Instructions for Transmission Submittals	
Introduction	1
Who Must File	4
Who May File	4
Changes From Previous IEPR	
Due Date	5
Submittal Format	5
Confidentiality	5
Specific Instructions for Electric Transmission Submittals	6
Bulk Electric System Description and Needs	6
Transmission Corridor Needs	8
APPENDIX A: How to Request Confidentiality	10
APPENDIX B: Garamendi Principles	12

General Instructions for Transmission Submittals

Introduction

The California Energy Commission is requesting that all utility owners of bulk electric transmission system facilities¹ ("transmission owners") file specific data² on their bulk transmission network and on specific projects identified in their transmission expansion plans, as well as data on anticipated transmission corridor needs. These data will provide a foundation for the analyses and recommendations of the 2011 Integrated Energy Policy Report (IEPR), as well as the 2011 Strategic Transmission Investment Plan (Strategic Plan) required by Public Resources Code (PRC) Section 25324. These assessments serve as the foundation for policy recommendations to the Governor, Legislature, and other agencies.

The Energy Commission would also like to provide independent transmission project sponsors the opportunity to showcase their projects by providing information through a voluntary response to these data requests. The Commission cannot require independent transmission developers to respond to these data requests; however, the Commission encourages independent transmission developers to voluntarily supply the information. Information from independent project proponents will allow the Commission to develop a more comprehensive analysis of transmission projects and potential alternatives.

The broad strategic purposes of policies adopted in the Energy Commission's *IEPR* and the *Strategic Plan* are to conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety. The Energy Commission is directed by PRC Section 25301 to conduct regular assessments of all aspects of energy demand and supply. To carry out these regular assessments of expected and needed electricity supplies, "the Commission shall conduct... (an) assessment of the availability, reliability, and efficiency of the electricity and natural gas infrastructure and systems including, but not limited to...western regional and California electricity and transmission system capacity and use." (PRC Section 25303[a][3]).

In addition, the Energy Commission is directed by PRC Section 25324 to "adopt a strategic plan for the state's electric transmission grid..." State law directs the Energy Commission to identify in the *Strategic Plan* recommended actions for implementing transmission investments that accomplish one or more of these objectives:

- Ensure reliability.
- Relieve transmission congestion.
- Meet future growth in load and generation, including generation from renewable energy resources.

^{1 &}quot;Bulk electric transmission system facilities" include transmission lines, interconnections with neighboring systems, and associated equipment, generally operated at voltages of 100 kV or higher. Radial transmission facilities serving only load with one transmission source are generally not included in this definition.

² For the transmission area, staff is providing instructions regarding the data needed, but will not be using forms.

These objectives identify basic needs to be addressed by transmission investments when alternative strategies (such as local generation, distributed generation or demand-side management) are inadequate to meet the stated objectives.

On November 17, 2008, Governor Schwarzenegger signed Executive Order S-14-083, which establishes a Renewables Portfolio Standard of 33 percent by 2020 for all retail sellers. It also directs state agencies to take all appropriate actions to implement this target in all regulatory proceedings, including siting, permitting, and procurement for renewable energy power plants and transmission lines. Furthermore, it directs the Energy Commission to work with other Renewable Energy Transmission Initiative⁴ (RETI) stakeholders to complete a report that identifies potential routes and interconnection points for new transmission lines. Executive Order S-14-08 also ordered the development of the Desert Renewable Energy Conservation Plan (DRECP) for the Mojave and Colorado deserts. The DRECP is a Natural Community Conservation Plan (NCCP) that will advance state and federal conservation goals and provide for the protection and conservation of desert ecosystems while allowing for the development of renewable energy projects and associated infrastructure, including transmission projects. The RETI and DRECP results, along with the transmission owners' responses to the data requests herein and information developed through the California Transmission Planning Group (CTPG)⁵ and California Independent System Operator (California ISO)⁶ planning processes, will support the analyses and recommendations of the 2011 IEPR and the 2011 Strategic Plan.

Furthermore, PRC Sections 25330 through 25341 established the Energy Commission's Transmission Corridor Designation Program to provide a link between long-term transmission

³ Office of the Governor of the State of California, Executive Order S-14-08, November 17, 2008, < http://gov.ca.gov/executive-order/11072/>, posted November 17, 2008, accessed October 27, 2010.

⁴ The Renewable Energy Transmission Initiative (RETI) is a statewide initiative to help identify the transmission projects needed to accommodate California's renewable energy goals, support future energy policy, and facilitate transmission corridor designation and transmission and generation siting and permitting. RETI is an open and transparent collaborative process in which all interested parties are encouraged to participate. See the RETI website for more information: http://www.energy.ca.gov/reti/index.html

⁵ The California Transmission Planning Group (CTPG) is a forum for conducting joint transmission planning and coordination in transmission activities to meet the needs of California. The CTPG was formed as a result of discussions facilitated by FERC to address California's transmission needs in a coordinated manner that would respect various business models. The CTPG includes transmission owners with an obligation to serve and transmission operators. CTPG is committed to developing a California state-wide transmission plan to meet the state's 33% by 2020 renewable portfolio standard (RPS) goal. In this effort CTPG is utilizing the Renewable Energy Transmission Initiative (RETI) conceptual plan as a starting point. See the CTPG website for more information: http://www.ctpg.us/public/index.php

⁶ The California Independent System Operator (California ISO) is a non-profit public benefit corporation charged with operating the majority of California's high-voltage wholesale power grid. Balancing the demand for electricity with an equal supply of megawatts, the California ISO is the impartial link between power plants and the utilities that serve more than 30 million consumers. The California ISO provides equal access to the grid for all qualified users and strategically plans for the transmission needs of this vital infrastructure. See the California ISO website for more information: http://www.caiso.com/

expansion planning and bulk transmission line permitting. The Energy Commission's Transmission Corridor Designation Program is conducted in two phases. During biennial proceedings to update the *Strategic Plan*, the Energy Commission identifies the basic needs, objectives, and planning timeframes for new transmission infrastructure. The Energy Commission's assessment of need for a transmission corridor is based on a finding that it conforms with the state's needs and objectives as stated in the most recently adopted *Strategic Plan*.⁷

In the second phase of the program, the Energy Commission reviews applications to determine the need for a proposed corridor on non-federal lands and the feasibility of the corridor to accommodate the siting of a new transmission line or lines and related substations or other facilities, including the preparation of a program environmental impact report (PEIR). Government agencies evaluating transmission proposals within designated corridors can "tier off" of the PEIR produced by the Energy Commission during the designation process by referencing the PEIR to focus their own environmental analysis on site-specific issues.⁸ For example, a California investor-owned utility (IOU) could work first with the Energy Commission and local governments during the designation process to identify a feasible transmission corridor, including appropriate mitigation options. Later, they would seek California Public Utilities Commission (CPUC) approval to build transmission lines within the designated corridor. The CPUC would be able to expedite its environmental review process by tiering off of the information in the PEIR.

If respondents have questions about the information being requested, or find a part of these instructions to be ambiguous, Energy Commission staff will work with the transmission system owners to clarify what information is being requested. General questions about the forms or instructions should be directed to Mark Hesters at mhesters@energy.state.ca.us or (916) 654-5049.

Source: California Environmental Quality Act Guidelines, Section 15385, available at: http://ceres.ca.gov/topic/env_law/ceqa/guidelines/15350-15387_web.pdf.

⁷ In the most recently adopted (2009) *Strategic Transmission Investment Plan*, the Energy Commission recommended that it begin outreach on the "least regrets" RETI segments that require new corridors and to begin developing phased solutions to interconnect specific renewable zones as generators commit to developing power plants.

^{8 &}quot;Tiering" refers to the coverage of general matters in broader EIRs (such as on general plans or policy statements) with subsequent narrower EIRs or ultimately site-specific EIRs incorporating by reference the general discussions and concentrating solely on the issues specific to the EIR subsequently prepared. Tiering is appropriate when the sequence of EIRs is:

⁽a) From a general plan, policy, or program EIR to a program, plan, or policy EIR of lesser scope or to a site-specific EIR;

⁽b) From an EIR on a specific action at an early stage to a subsequent EIR or a supplement to an EIR at a later stage. Tiering in such cases is appropriate when it helps the Lead Agency to focus on the issues which are ripe for decision and exclude from consideration issues already decided or not yet ripe.

Who Must File

All transmission owners are required to file a general description of their transmission system and specific information on limits to importing electricity into their bulk transmission grid, limitations on moving power within their bulk grid, transmission constraints that may limit their ability to meet state renewable energy procurement goals, and transmission corridor needs. Agencies may submit data for their members. For example, the Transmission Agency of Northern California may file on behalf of several transmission owners. All transmission owners that are planning strategic bulk transmission project upgrades or are the lead agency for such projects are required to provide the project information requested.

Please note: Where the information is available through another forum, transmission owners are asked to identify a contact person (name, phone number, and e-mail address) and a Web link, where appropriate.

Who May File

Independent transmission project sponsors have the opportunity to voluntarily provide information on their projects as part of the record. To ensure timely consideration in the 2011 IEPR and 2011 Strategic Plan proceedings, such parties should file project information in the appropriate areas of the specific instructions below and in the format described below by the due date of March 18, 2011.

Changes From Previous IEPR

This data request includes the following notable changes from the 2009 *IEPR*/2009 *Strategic Plan* transmission data request:

- Independent transmission project developers have the opportunity to file information on their projects as part of the record.
- The "Bulk Electric System Description and Needs" questions are now organized by timeframe (existing transmission, planned upgrades [2011-2020], short term construction/maintenance, and potential upgrades after 2020) rather than by purpose (transmission for importing power into the utility's network, transmission to move power within the utility's network, and transmission to meet state policy goals.)
- Item 3.b has been added to the Bulk Electric System Description and Needs. It requests
 detailed information on specific types of benefits that a transmission project may
 provide.
- Item 1.k has been added to the section entitled "Transmission Corridor Needs" to recognize the on-going development of the Desert Renewable Energy Conservation Plan (DRECP) for the Mojave and Colorado deserts.

Due Date

In adopting these forms and instructions, the Energy Commission specifically requires the relevant parties to file the specified transmission-related data by Friday, March 18, 2011. The data do not have to be distributed to the Integrated Energy Policy Report service list.

Transmission owners that require additional time may request an extension by submitting a written request to the Executive Director, as described in California Code of Regulations, Title 20, Article 2, Section 1342.

At a later date, the IEPR Committee may direct transmission owners to file additional data needed to assess particular scenarios, topical issues, or policy proposals under consideration.

Submittal Format

The Energy Commission encourages data filing by e-mail attachment if the attachment is 4 MB or less. When naming your attached file, please include your name or your organization's name.

Parties submitting data **without** a request for confidentiality are asked to submit either a compact disc or an electronic file containing the data and documentation to:

Docket@energy.state.ca.us

Please include "Docket #11-IEP-1E Transmission Planning" in the subject line.

Or by mail to:

California Energy Commission

Dockets Office

Attn: Docket 11-IEP-1E

1516 Ninth Street, MS-4

Sacramento, CA 95814-5512

Confidentiality

For the 2011 IEPR submissions, a modified process will be pursued to address confidentiality. A *Guide to Confidentiality Designations* covering demand, supply, and other planning data will compile previous Executive Director designations. This will serve as a guide for entities wishing to submit confidentiality requests but are unclear how similar requests have been handled in the past. While this guide is not a definitive determination, it provides a reference for consideration by applicants.

If you are requesting confidentiality for any part of your submittal, please read and carefully follow the instructions in Appendix A, "How to Request Confidentiality."

Specific Instructions for Electric Transmission Submittals

The transmission filing requirements have been divided into two general categories (bulk electrical system description and needs, and transmission corridor needs), and each transmission owner (or its agent) is required to address each category. Since the majority of this information will be narrative text, transmission owners are asked to submit this information in Word or Adobe PDF electronic format.

All transmission owners are required to file specific data on their bulk transmission network and on specific projects identified in their transmission plans. These data include descriptions of the transmission facilities or paths limiting power imports **into** their bulk transmission network, descriptions of the transmission facilities or paths limiting the transfer of power **within** their bulk transmission network, transmission limits that constrain the transmission owners' ability to meet legislated renewable resource procurement requirements, and anticipated corridor needs for bulk transmission facilities that are 200 kilovolt (kV) or above in capacity or are under the control of the California ISO.

Where the information is available through another forum, transmission owners are asked to identify a contact person (name, phone number, and e-mail address) and a Web link, where appropriate.

Bulk Electric System Description and Needs

Each transmission owner shall submit its most recent transmission expansion plan for its bulk electric transmission system, as well as a description of its existing transmission facilities and updated information on planned facilities not reflected in the most recent transmission expansion plan. The information filed shall include the following four items:

- 1. The transmission owner's most recent transmission expansion plan. This plan should describe in detail all of the transmission facilities over 100 kV that the transmission owner needs to:
 - a. Meet applicable reliability and planning standards.
 - b. Reduce congestion.
 - c. Interconnect new generation.
 - d. Meet state policy goals such as the Renewables Portfolio Standard or once-through cooling policies.

2. Existing Facilities:

- a. A description of the transfer capabilities for transmission lines or transmission paths delivering electric power **into** the transmission owner's grid.
 - i. The description shall include the size (for example, megavolt ampere [MVA] or megawatt [MW]) and length of the lines or lines included in the path and the substations to which the line connects.

- b. A description of the transfer capabilities for the bulk transmission lines or bulk transmission paths limiting the delivery of electric power **within** the transmission owner's grid.
 - i. The description shall include the size (MVA, MW) and length of the line or lines included in the path and the substations to which the line connects.
- 3. Planned transmission upgrades (including both upgrades to existing facilities as well as new facilities) that that are expected to be operational between January 2011 and December 2020, including those affecting both imports **into** a transmission owner's grid and those affecting the transmission owner's ability to move energy **within** its transmission network:
 - a. Descriptions of the upgrades including costs, maps, and the MW impact of the upgrades on transfer capabilities.
 - b. A detailed description of the upgrade's benefits including:
 - i. The effect of the transmission facilities on the transmission owner's ability to comply with state mandated electric policy goals such as renewable energy requirements, complying with State Water Resources Control Board policies for phasing out power plants that use once-through cooling,⁹ or eliminating or reducing local capacity requirements.
 - ii. Any increase in access to renewable energy. Where possible, list the location (region, competitive renewable energy zone) from which the energy can be imported.
 - iii. Any increase in the ability to import energy into transmission-constrained areas. Where possible, describe the area (local capacity area, sub-area) and potential reductions in local capacity requirements and the need to commit such capacity.
 - iv. Please indicate if the upgrade reduces or may reduce the need for existing capacity at specific locations within transmission-constrained areas or affect the commitment of specific resources in these areas.
 - v. Where specific project benefits are anticipated but not yet defined, describe the information and/or studies that would be required to specifically define the benefits.
 - c. Descriptions of the alternatives considered in developing the upgrades, including non-wires alternatives such as generation and demand-side management.

⁹ See the State Water Resources Control Board's document titled *Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters For Power Plant Cooling*, which became effective on October 1, 2010, available at the following

website: http://www.waterboards.ca.gov/water_issues/programs/npdes/docs/cwa316/policy100110. pdf

For more information on the process and proposed amendments to the final policy, see the following website: http://www.waterboards.ca.gov/water_issues/programs/npdes/cwa316.shtml

- 4. Any maintenance or construction that could impact transfer capabilities or the ability to move power over a path between January 2011 and December 2013.
- 5. A general description of any transmission upgrades that are expected to begin operating after December 2020.

Transmission Corridor Needs

Each transmission owner shall evaluate its needs for transmission corridors on non-federal lands by addressing the following three items:

- 1. For those point-to-point electrical transfer needs identified in the section above entitled "Bulk Electrical System Description and Needs," please discuss potential corridor needs in relation to the following:
 - a. Opportunities to link with existing federally-designated corridors or potential federal corridors identified under Section 368 of the Energy Policy Act of 2005.
 - b. Opportunities to provide transmission capacity to develop the renewable generation resources needed to meet the state's Renewables Portfolio Standard (RPS) goals.
 - c. Opportunities to import additional economical electricity from out of state.
 - d. Opportunities to improve the reliability or reduce the congestion of the state's electricity system.
 - e. Opportunities to upgrade existing transmission lines.
 - f. Opportunities to meet future growth in load.
 - g. The potential to impact sensitive lands that may not be appropriate locations for energy corridors including, but not limited to, state and national parks, state and national designated wilderness and wilderness study areas, state and national wildlife refuges and areas, critical inventoried roadless areas in national forests, habitat conservation plan areas, and special habitat mitigation areas.
 - h. Consideration of the Garamendi Principles (See Appendix B) as identified in Senate Bill (SB) 2431 (Garamendi, Chapter 1457, Statutes of 1988) and as noted in SB 1059, Section 1 (Escutia and Morrow, Chapter 638, Statutes of 2006), in the case of existing corridors.
 - i. Any work previously done with local agencies and any geographical areas of sensitivity that may have been identified.
 - j. Any other known major issues that have the potential to impact a future corridor designation.
 - k. Executive Order S-14-08, which established California's renewable energy goal of 33 percent from renewable resources by 2020, improved licensing processes for renewable projects, and ordered the development of the Desert Renewable Energy Conservation Plan (DRECP) for the Mojave and Colorado deserts.

- 2. If you have no plans for proposing a transmission corridor, please identify the circumstances or planning timeframes where you would opt to obtain a transmission corridor designation from the Energy Commission before applying for approval to build (or participate in) a transmission line project.
- 3. If you would not consider applying to the Energy Commission for a transmission corridor designation, please explain why not.

APPENDIX A: How to Request Confidentiality

The Executive Director of the Energy Commission has responsibility for determining what information submitted with an application for confidentiality will be deemed confidential. Parties who seek such a designation for data they submit must make a separate, written request that identifies the specific information and provides a discussion of why the information should be protected from release, the length of time such protection is sought, and whether the information can be released in aggregated form. Certain categories of data provided to the Energy Commission, when submitted with a request for confidentiality, will be automatically designated as confidential and do not require an application. The types of data that are eligible and the process for obtaining this confidential designation are specified in California Code of Regulations, Title 20, Section 2505(a)(5). Note that the Energy Commission has its own regulations distinct from those governing the California Public Utilities Commission (CPUC), and CPUC determinations on confidentiality are not applicable to data submitted to the Energy Commission.

Data that are not included in these categories but that the filer believes are entitled to confidential treatment should be submitted with an application for confidential designation so that the Executive Director can review the information and make a determination about its confidential status. To do this, please carefully read and follow the instructions below.

The application must include three attributes:

1. A hard copy of the application must be submitted to the Executive Director:

Melissa Iones, Executive Director

California Energy Commission

1516 Ninth Street MS-39

Sacramento, CA 95814-5504

- 2. The information being provided to the Energy Commission must be included as an attachment (either hard copy or electronic), marked as Docket #11-IEP-1E, and the confidential data categories must be clearly and properly marked.
- 3. A "penalty of perjury certification" must be included. Suggested standard language is as follows:

I certify under penalty of perjury that the information contained in this application for confidential designation is true, correct, and complete to the best of my knowledge. I also certify that I am authorized to make the application and certification on behalf of (ABC Utility or Corporation).

Applications deemed incomplete in these three respects will **not** be docketed by Energy Commission staff. Applications deemed incomplete will be returned, and the data will be placed in a confidential "suspense" file. The filer will be notified by mail and e-mail about deficiencies in the application. The applicant has 14 calendar days to correct defects in the application and return an amended application to the Energy Commission. After 14 days, all

information associated with an incomplete application for confidentiality (based on the three attributes listed above) will be deemed public and docketed accordingly. In addition, an application may be deemed incomplete and returned to the applicant if it does not contain the following information:

- Identification of the information being submitted, including title, date, size (for example, pages, sheets, MB), and docket number
- Description of the data for which confidentiality is being requested (for example, particular contract categories, specific narratives, and periods)
- A clear description of the length of time for which confidentiality is being sought, with an appropriate justification, for each confidential data category request
- Applicable provisions of the California Public Records Act (Government Code Section 6250 et seq.), and/or other laws, for each confidential data category request
- A statement attesting that a) the specific records to be withheld from public disclosure are exempt under provisions of the Government Code, or b) the public interest in non-disclosure of these particular facts clearly outweighs the public interest in disclosure
- A statement that describes how each category of confidential data may be aggregated with other data for public disclosure

The Executive Director signs confidentiality determination letters. The applicant has 14 calendar days to appeal this decision.

An applicant can request confidentiality at any time. The Energy Commission strongly encourages filers to provide data and any confidentiality requests concurrently.

More specific questions about confidentiality may be directed to Kerry Willis at kwillis@energy.state.ca.us or (916) 654-3967.

APPENDIX B: Garamendi Principles

In 1988, recognizing both the growing importance of transmission with the interconnection of independent power producers and the escalating conflicts between transmission-owning and transmission-dependent utilities, the California Legislature passed Senate Bill (SB) 2431 (Garamendi, Chapter 1457, Statutes of 1988), which contained the following findings concerning the role of transmission in California's future development:

- (a) The Legislature finds and declares that establishing a high-voltage electricity transmission system capable of facilitating bulk power transactions for both firm and nonfirm energy demand, accommodating the development of alternative power supplies within the state, ensuring access to regions outside the state having surplus power available, and reliably and efficiently supplying existing and projected load growth, are vital to the future economic and social well being of California.
- (b) The Legislature further finds and declares that the construction of new high-voltage transmission lines within new rights-of-way may impose financial hardships and adverse environmental impacts on the state and its residents, so that it is in the interests of the state, through existing licensing processes, to accomplish all of the following:
 - 1. Encourage the use of existing rights-of-way by upgrading existing transmission facilities where technically and economically justifiable.
 - 2. When construction of new transmission lines is required, encourage expansion of existing rights-of-way, when technically and economically feasible.
 - 3. Provide for the creation of new rights-of-way when justified by environmental, technical, or economic reasons, as determined by the appropriate licensing agency.
 - 4. Where there is a need to construct additional transmission, seek agreement among all interested utilities on the efficient use of that capacity.

In directing the Energy Commission to conduct an investigation and prepare a report outlining recommended policies and actions, SB 2431 plainly stated that the purpose of the report was to facilitate effective, long-term transmission line corridor planning.¹ One of the major findings of the report was that utilities should take appropriate mitigation measures to reduce the environmental impacts of approved projects.² The report also identified the absence of coordinated transmission and land-use planning as a major impediment to transmission development in California and called for a process to identify environmentally sensitive areas, acceptable areas, and areas where urban encroachment into transmission rights-of-way could pose problems.³ The basic principles and policies expressed in this effort formed a sound

3 Id at p. 15.

¹ California Energy Commission, *Transmission System and Right of Way Planning for the 1990's and Beyond*, March 1992, Publication P700-91-005, p. 1.

² Id at p. 7.

foundation for assessing and designating transmission corridors then and are still persuasive today, nearly 20 years after they were first articulated.	